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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,647	04/15/2005	Kazuhisa Ose	Nissin-4-PCT/Minori	1563
156	7590	06/08/2006	EXAMINER	
KIRSCHSTEIN, OTTINGER, ISRAEL & SCHIFFMILLER, P.C. 489 FIFTH AVENUE NEW YORK, NY 10017			KILKENNY, PATRICK L	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/531,647	Applicant(s) OSE ET AL.	
	Examiner Patrick J. Kilkenny	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenstein et al. (2002/0049009) in view of Lang (5,030,102). Rabenstein et al. discloses a model tooth system for securing a crown (page 1, paragraph 0002) in which there is a modeled root part and fixing part adjacent to the root part (Fig. 1, #'s 4 and 8). The fixing part is small cylindrical and surrounds the central axis. It has a constant dimension shaft (#8) and a variable dimension head (#11). The head is divided into multiple symmetrical divisions by a slot that extends along the axis of the shaft (Fig. 1,

#9). The divided parts are deformable towards the central axis and each other (page 3, paragraph 0044). There is also a model tooth-fixing base into which the root part and the fixing part of the model tooth are detachably fit (Fig. 3, #12). They are accommodated in a tooth-fixing hole (Fig. 3, seen in cross-section), which has the shape to lock in the swelling part of the tooth-fixing part of the tooth with a corresponding locking part on the tooth-fixing base (Figure 3, #16; Page 3, paragraph 0044). Rabenstein does not disclose that the head portion is greater in dimension than the shaft portion. Lang teaches a dental tooth model in which there is a root part (3), a shaft (6), and a head (4) and the head has a larger dimension than the shaft. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the head and shaft of the tooth model of Rabenstein et al. so that the head was larger than the shaft, as taught by Lang, so that there is a tighter fit when inserting the dental model tooth into the corresponding slot or hole.

Rabenstein et al. also does not disclose that the fixing part is made of an elastic resin with a bend elastic modulus of 800 to 10,000 MPa. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tooth model of Rabenstein et al. with a fixing part made from a elastic resin with a bend elastic modulus in the range of 800-10,000 Mpa, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenstein in view of Lang as applied to claim 5 above, and further in view of Schulz et

Art Unit: 3732

al. (3,458,936). Rabenstein in view of Lang disclose the claimed invention with the exception of the fixing part being detachably connected to the root part. Schulz et al. discloses a dental model tooth in which the fixing part is detachable from the root part of the tooth. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dental tooth model of Rabenstein in view of Lang so that the fixing part was detachable, as taught by Schulz et al., so that individual teeth and fixing parts could be interchangeably replaced when one or the other became excessively worn.

Rabenstein in view of Lang also does not teach a model base for receiving the fixing part of the tooth that has a locking snap fit action with the fixing part, is in the shape of a human jaw, and has a passage with to differently sized portions for receiving the shaft and the head of the fixing part. Schulz et al. discloses a dental models base in the shape of the human jaw (Fig. 1) for receiving the fixing part of the tooth with a locking snap fit action. There is a passage with a smaller portion for the shaft (28) and a larger portion for the head (18). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Rabenstein in view of Lang so the dental model base of Lang had a two portion passage with different dimensions for receiving both the shaft and the head of the fixing part, as taught by Schulz et al., so that the dental model tooth fit more tightly within the model base.

Rabenstein et al. in view of Lang also does not disclose that the maximum protuberant height of the enlarged part is 5-50% of the outer diameter of fixing part and

that 30-90% of this maximum protuberant height is engaged with the locking part. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the enlarged tooth fixing part of Rabenstein et al. to be 5-50% of the outer diameter of fixing part and have 30-90% of that maximum protuberant height engaged with the locking part, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

Applicant's arguments with respect to claims 5-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3732

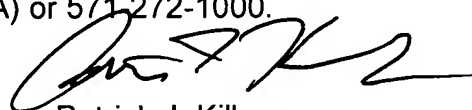
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Kilkeny whose telephone number is (571) 272-8684. The examiner can normally be reached on Mon-Fri, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PJK


Patrick J. Kilkeny
Art Unit 3732
May 29, 2006
5/29/06


PATRICIA BIANCO
PRIMARY EXAMINER
5/30/06